

quite distinct generations, of which one is homogenous, the other heterogenous." Now we must distinctly deny that any such case as this occurs:—*There is no Polype yet known which has true generative organs and also produces Medusiform bodies.* It may have one or the other, but never both; and whenever the Medusiform bodies are developed, they represent the generative organs. Nor is there any case known in which (as in *Synapta*) certain individuals of a species of Polype possess generative organs producing Polype ova, while others develop Medusiform bodies.

It may be true that certain Medusæ arise from the ova of other Medusæ, but this is no evidence of heterogony; for we have no right to assume, as is commonly done, that all Medusæ proceed from Polypes by gemmation.

There is no evidence whatsoever in favour of the supposition that the ova of Polypes may become Medusæ, but the contrary. It must then be admitted, that if *Synapta* possesses this "heterogenous" generation, it stands alone as an instance of a physiological phenomenon without analogy or parallel in the animal kingdom.—TRANSL.

V.—*Notes on Chalcidites, and Descriptions of various new species.*
By FRANCIS WALKER, F.L.S.

[Continued from vol. vii. p. 216.]

Megastigmus giganteus, Kollar MSS. *Flavus, vertice thoracisque disco viridibus, abdomine fulvo vitta fusca ornato, antennis nigris, pedibus flavis, tarsis anticis fulvis, alis subfulvis apud stigma fusco maculatis.*

Fem. Head yellow, brown behind around the insertion of the throat which is also yellow; crown bright green, with transverse furrows which differ in size: eyes bright red: mouth tawny: feelers black, very slightly increasing in thickness to the tips, full as long as the chest; first joint long, linear, tawny; second cup-shaped, tawny, brown above and at the base; third and fourth very short; the following joints from the fifth to the eleventh long, linear, successively decreasing in length; club long-conical, full twice the length of the eleventh joint: chest bright green, adorned here and there with copper-blue and purple-colour; breast and sides of the chest pale tawny: fore-chest rather large, subquadrate, completely sculptured with transverse irregular furrows, which are one of the characteristics of the *Torymidæ*; its length more than half its breadth: shield of the mid-chest very long, another peculiarity of this group; it is also deeply furrowed, but its fore-part appears almost smooth, the furrows being extremely small: sutures of the parapsides strongly marked, very slightly converging towards the hind-border of the shield, and there parted from each other by much more than half the breadth of the chest; axillæ separated by one-third of the breadth

of the chest; a rim on the hind-border of the shield; scutcheon nearly truncate-conical, convex behind, divided into two parts by a slight transverse ridge, which formation in the *Chalcidites* is a character of the development of that segment; the scutcheon is rugulose, coarsely so round the border, but the inequalities diminish in size towards the middle where the sculpture is minute and beautiful: the hind-chest is rather large, nearly obconical, declining; it is divided into three compartments by a transverse ridge which forms in the middle an angle joining the fore-border; the fore-compartments are short, and have each about six regular longitudinal ridges; the hind-compartment is longer and its ridges are more irregular, and it is subdivided by two slight furrows, and in the space between them there are two or three little transverse ridges: petiole extremely short: abdomen convex, spindle-shaped, smooth, shining, tawny, a little shorter and broader than the chest; sides yellow; metapodeon truncate-conical, concave towards the fore-border where it has three brown spots; the middle spot is heart-shaped, the side spots are triangular: along the back of the abdomen there is a brown stripe irregular in outline, and divided by the variations of its breadth into three parts; the first is cup-shaped, the second is nearly round, the third is spindle-shaped; the octoon is broad on each side, narrow in the middle of the back where a fissure divides it into two parts; it is free, or is not anchylosed with the following segment, which arrangement, a character of the *Torymidæ*, enables the abdomen to enjoy more freedom of motion for its functions, and to direct the movements of the ovipositor; emnaton, decaton and protelum large and of nearly equal size; paratelum and telum very short: sheaths of the ovipositor black, pubescent, as long as the body: legs yellow; hind hips tawny, brown at the base, much longer than the rest; thighs furnished with rows of white hairs; knees tawny; shanks pubescent; fore-shanks a little darker than the rest; fore-feet tawny; the peculiar dark colour of the fore-feet is very general among the *Chalcidites*; tips of the feet brown: wings with a very slight tawny tinge; veins dark brown, tawny towards the base of the wing; humerus beset with bristles towards its base, joining the fore-border by a very gentle curve; before this communication it sends forth a short slender curved tawny vein that descends into the disc of the wing; it is darker towards its tip, where it is traversed by a tawny stripe whose course is marked by a line of hairs; the ulna is about one-third of the length of the humerus; the radius is more than twice the length of the ulna; the cubitus is not more than one-fourth of the length of the ulna; the brand is large, oblong, emitting a short branch inclosed in a brown spot which is continued along the sides of the cubitus: the vein of the hind-wing after sinking below the fore-border during part of its course again joins it at its tip where it is furnished with the little hooks by which the fore-wings are attached to the hind-wings: the wings are pubescent, except at the base, where there are hardly any hairs. This species is distinguished from *M. dorsalis* by its larger size, its longer ulna and shorter radius, and by some slight differences in sculpture and colour.

South of Europe.

Eupelmus Tubatius, fem. *Viridis, metathoracis lateribus nitentibus, abdomine purpureo, oviductu brevi, vaginis fulvis, pedibus cupreis, tarsis flavis, alis fuscis, basi medioque limpidis.*

Head wanting: chest elliptical, green, slightly hairy, in structure like that of *E. urozonus*: hind-chest bright green on each side: abdomen spindle-shaped, depressed, purple, hairy, very much longer than the chest: sheaths of the oviduct tawny, very short: legs copper-colour, rather stout; knees tawny; feet yellow, with brown tips; tip of each middle shank armed with a long black spine; middle feet dilated, brown beneath: wings rather narrow: fore-wings brown, colourless at the base, and having an almost colourless band across the middle; veins piceous; ulna much longer than the humerus; radius shorter than the ulna; cubitus rather long, curved; wing-brand very small. Length of the body 3 lines; of the wings 5 lines.

a. Hong-Kong, China. In the British Museum.

Eulophus Harcalo, mas. *Nigro-æneus, antennis nigris, tarsis flavis, alis nigro-fuscis.*

Male. Small, æneous-black: feelers black, moniliform, and more than half the length of the body; first joint æneous-black, fusiform, long and slender; second cyathiform; third, fourth and fifth short-cyathiform, rather dilated, each emitting a short clavate branch at the base; seventh, eighth and ninth joints shorter and narrower than the preceding: chest elliptic, rather short and broad: abdomen linear and depressed, rather narrower but not longer than the chest: legs æneous-black; feet yellow with black tips; fore-feet darker: wings dark brown, rather short, somewhat paler at the base and at the tips; veins piceous; ulna rather longer than the humerus; radius much shorter than the ulna; cubitus much shorter than the radius, declining rather abruptly into the disc of the wing; stigma brand small. Length of the body $\frac{1}{2}$ line; of the wings $\frac{3}{4}$ line.

September; Bleasdale, near Lancaster.

Leucospis leucotelus, fem. *Nigra, capite antico antennisque ferrugineis, prothoracis marginibus scutellique margine postico flavis, alis nigricantibus apice albis.*

Body black, rather narrow, coarsely punctured, thinly clothed with short whitish hairs which are most prevalent on the face: face and mouth ferruginous; palpi brown: feelers dark ferruginous; sutures of the joints brown; first joint tawny beneath: fore-border and hind-border of the fore-chest and hind-border of the scutcheon yellow: abdomen compressed; sheaths of the oviduct ferruginous, extending to the fore-border of the scutcheon: legs pitchy; hind-thighs coarsely punctured, armed beneath with one long and with seven or eight small teeth; spines of the hind-shanks tawny: wings blackish; gray along the hind-borders; tips of the fore-wings white; veins black. Length of the body 5 lines; of the wings 10 lines.

Para. In the British Museum.

Chalcis fervida, fem. *Fulva, nigro fasciata et vittata, antennis nigris, pedibus fulvis, alis subfulvis.*

Body tawny, roughly punctured: feelers black, ferruginous at the tips; first joint tawny beneath: fore-chest short, narrower in front, concave along the hind-border, with a brown spot on each side: shield adorned on each side with two oblique black stripes which widen and unite towards the hind-border; the inner pair after a short interruption also converge and unite in front: a short black band on the scutcheon: propodeon large, obconical, reticulated with ridges; the compartments quadrilateral; a slight ridge along the middle, and a short black band at the base: petiole very short: abdomen smooth, shining, tapering from the base to the tip or clavate, narrower and much longer than the chest, compressed and hairy towards the tip; metapodeon large, conical, with a black band near the tip; octoon not half the length of the metapodeon; ennaton a little shorter than the octoon; decaton as long as the ennaton, traversed by a black band; protelum a little longer than the decaton, also traversed by a black band; paratelum much longer than the protelum; telum with a black tip, rather more than twice the length of the paratelum: legs tawny; hind-thighs armed beneath with one long sharp tawny and six small black blunt teeth; the fifth and sixth teeth double: wings slightly tawny; veins brown; humerus much less than half the length of the fore-border; ulna nearly half the length of the humerus; radius a little longer than the ulna; cubitus not one-fourth the length of the ulna, sending forth a very short branch; spurious vein tawny, indistinct. Length of the body $5\frac{1}{2}$ lines; of the wings 8 lines.

Para. In the British Museum.

Decatoma Neesii, Foërster. *Fulva, thoracis apice nigro, abdominis disco fusco, antennis pedibusque fulvis, alis anticis fusco semi-fasciatis.*

Fem. Body tawny: head and thorax punctured, slightly squameous: head transverse, a little broader than the thorax: eyes and ocelli piceous: feelers clavate, tawny, brown towards the base: base of the propodeon black: a broad irregular brown stripe along the back of the abdomen: legs tawny: wings colourless; veins tawny; ulna and radius very short; a pitchy spot beneath the ulna diffused into a broader brown band which descends into the disc of the wing. Nearly allied to *D. flavicollis*. Length of the body $\frac{2}{3}$ line; of the wings 1 line.

Inhabits Germany.

Palmon Sinensis, mas et fem. *Viridi-cyaneus, abdomine subtus fulvo, vaginis corpore fere duplo longioribus, antennis nigris, pedibus viridibus, tibiis anterioribus tarsisque anticis fulvis, tarsis posterioribus flavis, alis limpidis.*

Head and chest finely shagreened: head green, as broad as the chest: eyes red: mouth dark tawny: feelers black, club-shaped, much shorter than the chest: chest long and narrow, blue with a

green tinge: petiole short: abdomen compressed, smooth, shining, blue, brassy with a tawny tinge beneath, a little shorter than the chest: oviduct yellow, its sheaths black, nearly twice the length of the body: legs green; trochanters, four front shanks and fore-feet tawny; hind-hips and hind-thighs very large; the latter elliptical, armed beneath with six stout teeth; hind-shanks much curved, pitchy, tawny at the base, applied to the thighs; four hind-feet pale yellow with tawny tips: wings colourless; veins pitchy; ulna much shorter than the humerus; radius not more than one-sixth of the length of the ulna; cubitus very short, hardly half the length of the radius; brand very small. Length of the body $1\frac{2}{3}$ line; of the wings 3 lines.

Hong-Kong, China. In the British Museum.

Monodontomerus Anthophoræ, Newport, mas et fem. *Viridis, capite antico cyaneo, vertice maculis duabus cupreis ornato, abdominis fascia purpureo-cuprea, antennis nigris, pedibus viridibus, tarsis fulvis, tarsis anticis tibiisque ferrugineis, alis subcinereis.*

Male. Head and chest convex, finely shagreened: head green, full as broad as the chest, blue and nearly smooth in front, and having a large bright copper spot on each side of the crown between the eyes: eyes and eyelets red: feelers black, stout, compact, nearly filiform, much shorter than the chest; first joint long, slender, green; second cup-shaped; third and fourth extremely minute; the following joints from the fifth to the tenth successively but slightly decreasing in length; club conical, nearly thrice the length of the tenth joint: chest green, nearly spindle-shaped: fore-chest rather large, angular, but slightly narrower and rounded in front; its length a little more than half its breadth: shield of the mid-chest rather long; sutures of the parapsides strongly marked; axillæ coppery, parted by about one-fourth of the breadth of the chest: scutcheon conical, rather long, purplish coppery towards the tip; hind-scutcheon rather large: hind-chest transverse, short, declining: petiole very short: abdomen convex, slightly compressed, nearly spindle-shaped, shorter and rather narrower than the chest, purplish bronze, clothed with a few white hairs especially towards the tip; metapodeon bright green, coppery along the hind-border, about one-fifth of the length of the abdomen; octoon purplish bronze, not half the length of the metapodeon; ennaton longer than the octoon; decaton a little longer than the ennaton; protelum almost as long as the ennaton; paratelum shorter; telum very short: legs green; trochanters pitchy; knees tawny; shanks dark ferruginous with tawny tips; feet tawny; fore-feet and tips of four hinder feet ferruginous: wings slightly grey, pubescent, rather short; veins pitchy; ulna hardly half the length of the humerus; radius much less than half the length of the ulna; cubitus very short, about half the length of the radius; brand small, forked. Length of the body 2 lines; of the wings 3 lines.

England.